

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-000055**Date Inspected:** 04-May-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**Quality Control Contact:** Lu Jian Hua**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** NA**Bridge No:** 34-0006**Component:** NA**Bid Item:** 52, 55**Lot No:** NA**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe quality control functions related to welding, testing and fabrication procedures at the ZPMC facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item Description	WBS	Dwg No.	Status
1 PQR Mechanical Test			
Caltrans QA inspector was present as requested by ZPMC to witness the mechanical testing for PQR HP200778, HP200786 and HP200787. However, during the review of the test specimens prior to testing, Caltrans QA observed that ZPMC had not machine heat affected zone (HAZ) charpy's for PQR HP200778. Mr. Liu Liu was informed of the missing charpy's specimens. Mr. Liu Liu stated that ZPMC would have those specimens machined and reschedule the mechanical testing for PQR HP200778, for a later date. Caltrans QA witnessed the following mechanical testing:			
HP200786 Submerged Arc Welding (SAW) Complete Joint Penetration Groove Weld, 1G position with Steel Backing. AWS D1.5, Section 5.1.			
All Weld Metal Tension Test			
Reduced Section Tension Test			
Side Bend Test			
Charpy-V Notch (CVN) Test			
Groove Weld Macro Test			
Testing performed to AWS D1.5, Section 5.16, Figure 5.1 and Table 5.5 requirements.			
Caltrans assigned lot number B49-022-07.			
HP200787 Submerged Arc Welding (SAW) Complete Joint Penetration Groove Weld, 1G position with Steel Backing. AWS D1.5, Section 5.1.			

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All Weld Metal Tension Test

Reduced Section Tension Test

Side Bend Test

Charpy-V Notch (CVN) Test

Groove Weld Macro Test

Testing performed to AWS D1.5, Section 5.16, Figure 5.1 and Table 5.5 requirements.

Caltrans assigned lot number B49-023-07.

ZPMC Quality Assurance Manager, Mr. Liu Liu submitted supporting testing documentation for review and records.

The recorded test information appeared to be complete, accurate and complying with contract documents. The testing records are on file at Caltrans field office for future reference. See Caltrans Welding Witness Report (TL-6032), dated May 04, 2007 for additional information.



## 2 ABF Fabrication Mock-up in progress.

At 1500 hours, Caltrans QA Inspector observed fifty-two (52) ZPMC shop personnel performing fit up, welding, heat straightening and QC inspections on American Bridge/Fluor (ABF) mockups, designated as elevation 77.000 (diaphragm 3B), elevation 89.000 (diaphragm 1A & 1B), elevation 114.000 (tower splice) at ZPMC OBG workshop. Caltrans QA observed fifteen (15) ZPMC shop personnel performing fitup and preparation welding practice welding of the ribs to deck plate at the other ZPMC OBG workshop.

Caltrans QA observed ZPMC and ABF & Inspectech and Bureau Veritas QC inspectors performing observations and inspections.



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### Summary of Conversations:

As identified within the contents of this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hasler, Mike	Quality Assurance Inspector
<b>Reviewed By:</b>	McClary, David	QA Reviewer

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